

REMARKS

I. Preliminary Matters

Applicants thank the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119 and receipt of the certified copy of the priority document.

Applicants also thank the Examiner for approving the drawings filed on October 31, 2003. Further, Applicants thank the Examiner for reviewing and considering the references cited in the Information Disclosure Statement of October 31, 2003.

II. Rejection Based on Widdowson

Claims 1, 2, and 6 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Widdowson et al., “Polarisation guiding in ultralong distance soliton transmission,” *Electronics Letters*, Vol. 30, No. 11, 26 May 1994, pages 879-880 (hereinafter “Widdowson”).

A. Independent Claim 1

Widdowson is generally directed to a polarization division multiplexed (PDM) and optical time division multiplexed (OTDM) transmission system (p. 880, first full paragraph). The system in Widdowson comprises a receiver that time division demultiplexes the transmitted signal (*Id.*). Widdowson also uses a polarizer in front of the demultiplexer to ensure that solitons from only one polarization state are detected (Fig. 1; *Id.*).

However, Widdowson does not teach or suggest “a polarization selective element for separating *from the isolated pulses* at least one component that has a single polarization,” as recited in claim 1. This claim language requires that the polarization selective element be located *behind* the polarization insensitive optical switch, which isolates optical pulses within the

pulse train. On the contrary, Fig. 1 of Widdowson shows that the polarizer is located in front of the demultiplexer (p. 880, first full paragraph).

At least by virtue of the aforementioned differences, claim 1 distinguishes over Widdowson. Claims 2-5 are dependent claims including all of the elements of independent claim 1, which as established above, distinguishes over Widdowson. Therefore, claims 2-5 are patentable for at least the aforementioned reasons, as well as for their additionally recited features.

B. Claim 2

With further regard to claim 2, Widdowson uses polarization controllers within the recirculating loop transmission path (p. 880, first full paragraph). However, Widdowson does not teach or suggest a receiver further comprising a “polarization controller being disposed between the optical switch and the polarization selective element,” as recited in claim 2. Instead, Fig. 1 of Widdowson shows that all of the polarization controllers are located before both the demultiplexer and the polarizer. Therefore, claim 2 distinguishes over Widdowson at least by virtue of the aforementioned differences, as well as its dependency on claim 1.

C. Independent Claim 6

Because claim 6 contains features that are analogous to the features recited in claim 1, claim 6 is patentable over Widdowson for analogous reasons. In particular, Widdowson does not teach or suggest a method for receiving an OTDM pulse train comprising the step of “separating from the isolated pulses at least one component that has a single polarization,” as recited in claim 6.

III. Rejection Based on Widdowson in view of Heismann

Claims 3-5 and 7-9 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Widdowson in view of Heismann et al., “Automatic Polarization Demultiplexer for Polarization-Multiplexed Transmission Systems,” *Proceedings of the European Conference on Optical Communications*, Vol. 2, 12 September 1993, pages 401-404 (hereinafter “Heismann”).

Claims 3-5 depend from claim 1, which is patentable over Widdowson as explained above. Similarly, claims 7-9 depend from claim 6, which is also patentable over Widdowson as discussed above. Further, Heismann does not remedy the deficiency in Widdowson, because it does not teach or suggest “separating from the isolated pulses at least one component that has a single polarization,” as recited in claims 1 and 6. Instead, Heismann discloses only a polarization demultiplexer for polarization multiplexed transmission systems, and does not isolate optical pulses with a polarization insensitive optical switch. Therefore, claims 3-5 and 7-9 are patentable over Widdowson, Heismann, and their combination, at least by virtue of their dependency on claims 1 and 6, respectively, as well as for their additionally recited features.

IV. Conclusion

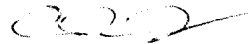
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/697,120

Attorney Docket No.: Q78116

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: November 14, 2006